and a sediment composed of small particles of irregular shape collected at the bottom of the tube. By the use of about 0.2 c.c. of the primary culture, successful transplants can be secured. The material for inoculation was obtained from patients suffering with the disease and from experimentally infected monkeys. Some of the latter material was preserved nine months in glycerin. An emulsion made from this material after passage through a Berkefeld filter gave a positive culture. All the pure cultures obtained from the various sources were examined and showed similar characteristics morphologically and with dyes. In the dark field preparation it is possible with practice to distinguish the organism. It is best stained by Giemsa's or Gram's stain. The organisms are round in pairs, in short chains, or irregular conglomerate masses. The individual organisms reach a size of about 0.2 micron in diameter. The limit of optical definition in a microscopic preparation is between 0.15 and 0.3 micron. It is quite possible that smaller organisms than those observed may exist. In solid media chains are missed. As the culture becomes old, degenerative changes may occur. The organism described above is found so constantly in the central nervous system of diseased men or monkeys that the presumptive evidence of its etiological relationship is strong. In attempting to reproduce poliomyelitis in monkeys cultures which were obtained from human sources as well as from monkeys were used. Inoculations were made directly into the brain or into the nervus ischiadicus and peritoneal cavity. As was to be expected the material obtained from man proved less infectious than that which had already been passed through monkeys. Positive results were obtained with each method of inoculation equally frequent. Cultures which were in their eighteenth or twentieth generation caused the disease to appear in monkeys. Tissues from these infected monkeys were proved to be infective. Furthermore, all the characteristic histological changes of the experimental infection were reproduced in the infected monkeys.

The Production of Acetone Bodies in the Living Animal.—F. Fichler and H. Kossow (*Deut. Arch. f. klin. Med.*, 1913, cxi, 479) conclude from their experimental studies in part as follows: The liver is the organ where acetone and diacetic are formed in the body. It has already been shown that the perfused liver is capable of forming these substances. Furthermore, it is in the liver that B-oxybutyric acid is formed. It is probable that this acid is produced chiefly in the liver, though it is not certain that other organs or tissues are not also concerned in its formation. The fact that an animal whose liver function is partially destroyed produces less of these bodies than one in whom the liver function is normal supports the view expressed above. In so-called reversed Eck's fistula the liver produces excessive amounts of acetone bodies.

The Fatiguability of the Kidneys.—H. Mosental and C. Schlayer (*Deut. Arch. f. klin. Med.*, 1913, cxi, 217) have made an experimental study of the fatiguability of the kidney with the following results: The diseased kidney may be exhausted in various ways. The state of renal function determines very largely which diuretic fatigues the kidney and which does not. The kind and frequency of use of the irritant employed to produce the kidney lesion is also an important factor, as well as the dose of the diuretic. An excess of sodium chloride may increase the fatiguability of a diseased kidney (chromium poisoning), even though it is well excreted. This fatiguability of the kidney is shown experimentally only after giving caffein. In other cases caffein may restore to activity a kidney fatigued by sodium chloride.

The Secretion of Urotropin by the Mucous Membranes.—A. Leibecke (*Berlin. klin. Woch.*, 1913, l, 1698) has attempted to determine whether urotropin is secreted in concentration sufficient to inhibit bacterial growth, especially in the middle ear. His results are summarized as follows: (1) Urotropin appears in the urine about one-half hour after it is administered, in the cerebrospinal fluid after three-quarters of an hour, in the milk in one hour, in the ear and bronchial secretions after about two hours and in peritoneal exudates after about four hours. It disappears from the secretion of the ear after fifteen hours, from bronchial pus after thirty hours, from the milk after twenty-one hours, from cerebrospinal fluid after fifty-three to seventy-seven hours. The time intervals are only approximate. (2) The greatest concentration is contained in the cerebrospinal fluid and milk soon after giving the drug. In the exudate from the middle ear, this point is reached only after four to six hours. The same apparently holds true for bronchial pus. (3) In doses of 0.25 to 1 gram the maximum concentrations observed were 1 to 10,000 in the ear, peritoneal pus 1 to 12,000, 1 to 15,000 in cerebrospinal fluid, and 1 to 20,000 in bronchial exudate; the concentration in the milk is the lowest. (4) The concentration of urotropin in cerebrospinal fluid and aural pus in the child in doses of 0.25 and 1.5 grams bears no quantitative relation to the dosage. The body weight of the patient also appears to be of no consequence. (5) No cumulative effect is demonstrable in milk, cerebrospinal fluid or aural pus. (6) It is recommended to give relatively large doses within six or seven hours. (7) In concentration on 1 to 10,000 to 1 to 6000 in aural pus the effect on bacterial growth is doubtful. (8) Injurious effects on kidneys are conceivable with the usual therapeutic dose, but the danger of this is very slight if the patient drinks freely of water.

A Contribution to the Radiological Examination of the Pericardium.—E. v. Czyhlarz (*Wien. klin. Woch.*, 1913, xxvi, 1394) finds that during deepest inspiration a clear space is seen between the shadow of the diaphragm and that of the heart extending from the apex to the vertebral column in about 75 per cent. of normal individuals. The phenomenon is apparent only for one to two seconds and is lost soon as expiration begins. It is difficult to photograph it satisfactorily, but with practice it can be detected readily with fluoroscopic examination. The phenomenon is due to separation of the two layers of the diaphragm, one of which is attached to the diaphragm, the other to the heart. The presence of the phenomenon, therefore, excludes the possibility of an adhesive pericarditis involving this area. As the phenomenon may not be observed in a certain proportion of normal individuals, its absence is without significance.